

1 Introduction

1.1 What are TIGER/Line Shapefiles?

The TIGER/Line Shapefiles are extracts of selected geographic and cartographic information from the U.S. Census Bureau's Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) database. Geographic base linear, area, and point features such as streets, railroads, rivers, lakes, and geographic area boundaries are represented in the files, as well as the polygons that make up the legal and statistical geographic areas for which the Census Bureau tabulates data. The files also contain attribute information about these features, such as names, the type of feature, address ranges for most streets, the geographic relationship to other features, and other related information. The shapefiles include information for the fifty states, the District of Columbia, Puerto Rico, and the Island areas (American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands).

The TIGER/Line Shapefiles are an extract of all geographic areas for which the Census Bureau tabulates data and a selected set of attributes associated with each geographic feature. The shapefiles do not contain any sensitive data, areas used for administering censuses and surveys, or attributes used only in internal processing. The TIGER/Line Shapefiles are designed for use with geographic information system (GIS) software.

1.2 What is the MAF/TIGER database?

The MAF/TIGER database is the Census Bureau's set of digital geographic files that store all of the address and geographic base and area information needed to collect and tabulate data from censuses and surveys. The MAF/TIGER database contains a variety of geographic and flat tables to store this data with a greater number of areas and attributes than that produced in the TIGER/Line Shapefile products, many of which are used for internal processing to support mission operations such as field data collection, allocation of housing units to specific geographic areas, and maintenance of a national address file.

The Master Address File (MAF) portion of the database contains a record for each identified potential housing unit with detailed attributes to assist in allocating housing specific geographic areas, identifying units for inclusion in census operations, and required metadata. The geographic database, from which the TIGER/Line Shapefiles are extracted, contains all of the points, lines, and polygons that form the base for the identification of features, including point landmarks and node intersections, shape points, linear streets, streams, and geographic boundaries, and area representations of water bodies, landmarks and geographic areas for which the Census Bureau tabulates data. Generally, the network of points and lines create the polygons, which in turn are linked to geographic information stored as separate tables consisting of a table for each geographic or addressing feature. Associated with the MAF/TIGER database is a suite of software used to maintain the integrity and update the database for Census Bureau day-to-day operations.

From the MAF/TIGER database, the Census Bureau creates products and cartographic databases, both of which are further edited. The TIGER/Line Shapefiles are derived from the extracted and additionally edited product database.

1.3 Relationship of the TIGER/Line Shapefiles to Census Statistical Data

What makes the TIGER/Line Shapefiles particularly valuable in the GIS environment, and to the data user community, is the ability to create a direct linkage between data from Census 2000, the American Community Survey, the Economic Census, or other survey and population estimates data and the geographic areas in the TIGER/Line shapefiles. The TIGER/Line Shapefiles include Federal Information Processing Series (FIPS) codes and, for selected geographic entities, Census Bureau codes, or locally produced codes to uniquely identify geographic areas for the nation's legal and statistical entities. Many current geographic entity types also include the American National Standards Institute (ANSI) Geographic Names Information System (GNIS) codes. The inclusion of a set of unique key codes allows for geographic entities to be easily matched and linked with data from Census 2000 and subsequent programs and censuses.

Demographic data from surveys and censuses are not part of the TIGER/Line Shapefiles but can be joined by using the geographic entity codes found in both the shapefiles and the demographic data. Data from many of the Census Bureau's surveys and censuses, including the geographic codes needed to join to the TIGER/Line Shapefiles, can be obtained from American FactFinder (<http://factfinder.census.gov>).

1.4 History of TIGER/Line Files and Shapefiles

The TIGER/Line files were initially released in 1990 and provided the first nationwide street centerline coverage of the United States, Puerto Rico, and the Island Areas in a series of ASCII format fixed tables or record types. These ASCII TIGER/Line files can be converted to a GIS compatible format with the use of a translator. Periodic versions were released throughout the 1990s in ASCII format. A limited supply of the 1992 TIGER/Line files are available from the US Census Bureau by calling (301) 763-INFO. The 1992 version provides a link between 1980 and 1990 Census geography. Currently no other versions of the pre-2000 TIGER/Line files are available.

For Census 2000, several versions of TIGER/Line files were released from 2000 to 2002 in the ASCII TIGER/Line file format to support the Census 2000 data tabulations. From 2004 to 2006, additional versions were released in ASCII TIGER/Line file format. The Census 2000 versions, the 108th Congressional District version, and the 2006 second edition of the TIGER/Line files in ASCII format are available on the TIGER website at <http://www.census.gov/geo/www/tiger>.

Beginning with the 2007 version, the format of the TIGER/Line files changed from the ASCII TIGER/Line file format to shapefile. All versions of the shapefiles are available from the Census Bureau's website at <http://www.census.gov/geo/www/tiger>.

For copies of additional versions of TIGER/Line files that are no longer available from the Census Bureau, users should contact their local State Data Centers or university libraries.

1.5 New Features in 2009 TIGER/Line Shapefiles

In response to the needs of the data users, 2009 TIGER/Line Shapefiles have several new features:

- Conversion of the Topological Faces Relationship Files from the tabular form to shapefiles
- Name changes of the Public Use Microdata Areas:
 - *PUMA* (formerly identified as 5- or 10-percent PUMA)
 - *Super PUMA* (formerly identified as 1-percent PUMA)
- Addition of internal point coordinates
- Addition of area measurement
- New state-based shapefiles:
 - American Indian/Alaska Native/Native Hawaiian Areas (Census 2000 and current)
 - American Indian Tribal Subdivisions (Census 2000 and current)
 - Combined Statistical Areas (current)
 - Metropolitan Statistical Area and Micropolitan Statistical Areas (current)
 - Metropolitan Divisions (current)
 - Military Installations (current)
 - Combined New England City and Town Areas (current)
 - New England City and Town Areas (current)
 - New England City and Town Areas Division (current)
 - State and Equivalent Entities (Census 2000 and current)
 - 5-Digit ZIP Code Tabulation Areas (2002)*
 - 3-Digit ZIP Code Tabulation Areas (2002)*

*Users should note that, in some cases, the ZIP Code Tabulation Areas may extend beyond state boundaries, as they are not clipped at the state or equivalent entity boundary.

1.6 TIGER/Line Shapefile Legal Disclaimers

No warranty, expressed or implied, is made with regard to the accuracy of the data in the TIGER/Line Shapefiles, and no liability is assumed by the U.S. Government in general, or the Census Bureau specifically, as to the positional or attribute accuracy of the data. The boundary information in the TIGER/Line Shapefiles is for statistical data collection and tabulation purposes only. Their depiction and

designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement and they are not legal land descriptions.

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1.7 Questions and Contact Information

Questions about TIGER/Line Shapefiles obtained from the Census Bureau can be directed to the Geographic Products Branch, Geography Division, U.S. Census Bureau. The TIGER/Line Shapefiles are offered to the public without any cost through the Census Bureau's website. If you obtain the TIGER/Line Shapefiles from a third party, we recommend you contact that vendor for assistance as it is possible that they made changes to the files that we are unaware of or unable to support.

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